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REMARKS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

On page 2 of the Office Action, the Examiner made reference to "no response is found submitted to the PTO-152 form mailed with the Office Action of 4/17/03". The Applicants respectfully submit that, by thoroughly checking the record, it does not appear that any PTO-152 form has been received from the Patent Office. A replacement copy of such form is respectfully requested of the Examiner.

Claims 1-3, 5, 7-12, 14-17 and 19-20 are pending in the application. Claims 1-3, 5, 7-12, 14-17 and 19-20 stand rejected.

**Claim Rejections Under 35 USC §103**

Claims 1-3, 5, 7-12, 14-17 and 19-20 are rejected under 35 USC §103(a) as being unpatentable over Cheng in view of Jap. Pat. '285, Mori et al and Jap. Pat. '172. It is contended that Cheng discloses a substantially similar device such as including a holding station 112, a screw 125 and controller, and the use of plurality screws is shown by Jap. '485. It is further contended

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that while Cheng does not disclose the distance sensors to control the vertical drive, the use of distance sensors are disclosed in Mori et al and Jap. '172.

The rejection of claims 1-3, 5, 7-12, 14-17 and 19-20 under 35 USC §103(a) based on Cheng, Jap. Pat. '285, Mori et al and Jap. Pat. '172 is respectfully traversed.

The present invention teaches a loadport of a semiconductor fabrication equipment for receiving a wafer cassette and more particularly, relates to a loadport for a semiconductor fabrication equipment that is equipped with automatic height adjustment means capable of maintaining the loadport at a predetermined height and a method for operating the loadport. As clearly recited in independent claim 1:

"Claim 1. A loadport equipped with automatic height adjustment means comprising:

a movable platform adapted for ...;

at least two support members for supporting ...

and for moving said platform ...;

a distance sensor mounted ...; and

a process controller for receiving a first signal from said distance sensor, comparing to a pre-stored datum and then sending a second signal to said at least

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two support members to move said movable platform until  
said first signal equals said pre-stored datum."

Two major elements are thus taught and claimed by the present invention; first, a movable platform (or loadport) for a semiconductor fabrication equipment. Secondly, a closed-loop feed back control system including a process controller for receiving a first signal from the distance sensor, comparing to a pre-stored datum and then sending a second signal to the at least two support members to move the movable platform until the first signal equals the pre-stored datum.

The Applicants respectfully submit that neither one of the two major elements of the present invention are taught by the four references of Cheng, Jap. '285, Mori et al and Jap. 172.

While the Applicants respectfully agree with the Examiner that Cheng and Jap. '285 do not teach distance sensors to control a vertical drive for a loadport, the Applicants further respectfully submit that neither reference teaches a loadport for a semiconductor fabrication equipment. Furthermore, both Mori et al and Jap. '172 teach a wafer transporting robot arm equipped with

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distance sensors to determine the warpage of the robot blade. Neither Mori et al nor Jap. '172 is related to a loadport for a semiconductor fabrication equipment.

More importantly, neither one of the four references teaches a closed-loop feed back control system for the positioning of a loadport of a fabrication equipment. In other words, neither one of the four references teach a process controller for receiving a first signal from the distance sensor, comparing to a pre-stored datum and sending a second signal to the at least two support members to move the movable platform until the first signal equals the pre-stored datum.

The Applicants have therefore clearly shown that the four references of Cheng, Jap. '285, Mori et al and Jap. '172, even when combines, do not teach the present invention loadport for a fabrication equipment and closed-loop feed back control system as clearly recited in independent claims 1 and 11. A reconsideration for allowance of claims 1-3, 5, 7-12, 14-17 and 19-20 is respectfully requested of the Examiner.

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In the Office Action of 02/06/04, the Examiner further stated that "applicant's discussion of certain individual features of the several references is insufficient to show obviousness where the rejection is based on a combination of references".

The Applicants respectfully submit that such statement by the Examiner is not the Applicant's argument in the present application. Rather, the Applicants are arguing, by presenting non-rebuttable evidence that, even when all four references are combined, the primary features of the present invention as recited in independent claims 1 and 11:

1. A movable platform (or loadport); and
2. A closed-loop feedback control system,

are clearly not taught or disclosed by the four references, either singularly or in combination thereof. The Examiner is respectfully solicited to show in each and any one of the four references where the above cited two elements are shown.


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Based on the foregoing, the Applicants respectfully submit that all of the pending claims, i.e. claims 1-3, 5, 7-12, 14-17 and 19-20, are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

Tung & Associates



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Randy W. Tung  
Reg. No. 31,311  
Telephone: (248) 540-4040

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